

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A radio network controller including a plurality of protocol layers, which comprises a plurality of blocks each formed of protocol layers obtained by segmenting said plurality of protocol layers,

wherein said plurality of blocks comprises at least two blocks of a first block and a second block, and wherein the first block and second block are connected by a User Datagram Protocol (UDP)/ Internet Protocol version 6 (IPv6) layer arranged therebetween,

wherein said plurality of protocol layers are segmented to execute Quality of Service (QoS) control by buffering at least one of RLC layer segmentation and concatenation data, and

wherein said first block and second block include at least a Packet Data Convergence Protocol (PDCP) layer, an RLC (Radio Link Control) layer which executes U (User)-plane data segmentation and concatenation, a MAC (Medium Access Control) layer and a FP (Frame Protocol) layer.

2. - 3. (canceled)

4. (currently amended): The radio network controller according to claim ~~2~~ or claim 3, wherein the buffering RLC layer segmentation or concatenation data comprising comprises a filtering function ~~or~~ for detecting a start packet and an end packet each set in advance from said

U-plane data to ~~input~~ buffer RLC layer segmentation and concatenation data with including said start packet and end packet ~~excluded to a buffer~~ and/or abandon the RLC layer segmentation and concatenation data according to the detection result.

5. (currently amended): A Quality of Service (QoS) control method of a radio network controller including a plurality of protocol layers, where said plurality of protocol layers are segmented into blocks to execute QoS control taking a Radio Link Control (RLC) layer which executes at least one of User (U)-plane data segmentation and concatenation ~~into consideration~~,

wherein said plurality of blocks comprises at least two blocks of a first block and a second block, and wherein the first block and the second block are connected by a User

Datagram Protocol (UDP)/Internet Protocol version 6 (IPv6) layer arranged therebetween,

wherein said first block and second block include at least a Packet Data Convergence Protocol (PDCP) layer, a Radio Link Control (RLC) layer which executes U (User)-plane data segmentation and concatenation, a MAC (Medium Access Control) layer and an FP (Frame Protocol) layer, and

wherein said plurality of protocol layers are segmented to execute Quality of Service (QoS) control by buffering at least one of RLC layer segmentation and concatenation data.

6. (canceled)

7. (currently amended): The QoS control method according to claim 5 ~~or claim 6~~, wherein by the control of a filtering function of detecting a start packet and an end packet each

set in advance from said U-plane data, data with said start packet and end packet excluded is input to a buffer and abandoned according to the detection result.

8. (previously presented): The radio network controller according to claim 1, wherein said plurality of blocks comprises at least three of said blocks, wherein each of said plurality of blocks are connected by one of a plurality of UDP/IPv6 layers comprising said UDP/IPv6 layer.

9. (previously presented): The QoS control method according to claim 5, wherein said plurality of blocks comprises at least three of said blocks, wherein each of said plurality of blocks are connected by one of a plurality of UDP/IPv6 layers comprising said UDP/IPv6 layer.

10. (currently amended): The radio network controller according to ~~claim 3~~claim 1, wherein the QoS control is executed based on the U-plane data segmentation and concatenation executed in the RLC layer.

11. (previously presented): The QoS control method according to claim 5, wherein the QoS control is executed based on the U-plane data segmentation and concatenation executed in the RLC layer.

12. (currently amended): The radio network controller according to ~~claim 2~~claim 1, further comprising a filtering function which detects a start packet and an end packet in said U-plane data, performs a comparison between a size of input data which exists between the start

and end packets and a free capacity of a Quality of Service (QoS) buffer, and allows or abandons the input data based on a result of the comparison.

13. (previously presented): The QoS control method according to claim 5, further comprising:

detecting a start packet and an end packet in said U-plane data;

performing a comparison between a size of input data which exists between the start and end packets and a free capacity of a QoS buffer; and

allowing or abandoning the input data based on a result of the comparison.

14. (previously presented): The radio network controller according to claim 12, wherein the filtering function allows the input data to be input to the QoS buffer if the size of the input data is smaller than the free capacity of the QoS buffer, and abandons the input data if the size of the input data is larger than the free capacity of the QoS buffer.

15. (previously presented): The QoS control method according to claim 13, wherein the allowing of the input data comprises allowing the input data to be input to the QoS buffer if the size of the input data is smaller than the free capacity of the QoS buffer, and the abandoning of the input data is performed if the size of the input data is larger than the free capacity of the QoS buffer.